

NATIONAL ASSOCIATION OF THE DEAF

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October 18, 1999

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Ms. Magalie R. Salas
Secretary
Federal Communications Commission
445 12th Street, S.W., TW-A325
Washington, D.C. 20554

Re: In the Matter of Closed Captioning Requirements for
Digital Television Receivers, ET Dkt. No. 99-254

Dear Ms. Salas:

Enclosed please find one original and four copies of comments filed by the National Association of the Deaf and the Consumer Action Network in the above captioned proceeding.

Sincerely,

Karen Peltz Strauss
Legal Counsel

Enclosures

cc: Neal L. McNeil (diskette)
ITS

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ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

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Closed Captioning Requirements for
Digital Television Receivers

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**COMMENTS OF
THE NATIONAL ASSOCIATION OF THE DEAF AND
THE CONSUMER ACTION NETWORK**

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October 18, 1999

SUMMARY

The Federal Communications Commission (FCC) is proposing to amend its rules governing the display of closed captions on televisions, in order for those rules to process and deliver captions in the digital environment. Although the FCC explains that the digital revolution can enable caption viewers to control the spacing, font, size, color, background, and placement of captions, very little in the proposed rules will in fact enable viewers to do just this. Rather the rules do little to facilitate an environment that will enable consumers to fully exploit the versatility of new digital features. Instead, by adopting only Section 9 of EIA-708, the rules do little more than to maintain the status quo, and in at least one instance, take a step backwards.

We urge the FCC not be shortsighted in adopting a digital captioning standard. Adoption of the EIA-708 standard, in its entirety, is needed to ensure that Americans who are deaf and hard of hearing will truly be able to share in the benefits of new digital technologies. Incorporation of access features at these early design stages is critical for their success. If incorporated now, these features can be added with minimal disruption to the design process. Postponing their inclusion until a later time will result in expensive and burdensome retrofits at a time when manufacturing resources can be used for other purposes.

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**COMMENTS OF
THE NATIONAL ASSOCIATION OF THE DEAF AND
THE CONSUMER ACTION NETWORK**

I. Introduction

The National Association of the Deaf (NAD) and the Consumer Action Network (CAN) submit these comments in response to the Federal Communication Commission's (FCC's or Commission's) Notice of Proposed Rulemaking (NPRM) in the above captioned proceeding. The NAD is the largest organization safeguarding the accessibility and civil rights of 28 million deaf and hard of hearing Americans in education, employment, health care and telecommunications. The mission of the NAD is to promote, protect, and preserve the rights and quality of life of deaf and hard of hearing individuals in the United States. The NAD is a private, non-profit federation of 51 state association affiliates including the District of Columbia, organizational affiliates, and direct members. CAN is a coalition of national organizations of, by, and for deaf and hard of hearing people, that also seeks to protect and expand the rights of deaf and hard of hearing

persons in education, employment, telecommunications, technology, health care, and community life.¹

The FCC's instant proceeding proposes to amend Part 15 of its rules to adopt standards for the display of closed captions on digital television (DTV) receivers, and to require the inclusion of decoder circuitry in DTV receivers. Digital television has been described as "a superior television format that delivers better pictures and sound, uses the broadcast spectrum more efficiently, and adds versatility to the range of applications."² This technology brings with it the opportunity to reassess existing industry practices for the provision of closed captioning.

The Commission's NPRM explains that the Electronics Industries Alliance (EIA) has adopted a new standard, EIA-708-A,³ for the provision of closed captions with digital television technology. The Commission acknowledges that this new standard offers "substantial improvements" over existing captioning standards.⁴ Indeed, we agree that EIA's new standard would enable caption viewers to truly reap the benefits of the digital revolution. By enabling caption viewers to customize their caption displays, deaf and hard of hearing people, as well as the millions of hearing Americans who use captions,⁵ will be able to truly share in the benefits of this extraordinary technology. If adopted by the FCC, the new standard would allow viewers to control the spacing, font, size, color, background, and screen position of captions.

¹ See Attachment A for a complete list of CAN membership organizations.

² *Charting the Digital Broadcasting Future, Final Report of the Advisory Committee on Public Interest Obligations of Digital Television Broadcasters* (Wash. D.C., December 18, 1998) at 3.

³ It is our understanding that revisions to this original standard have changed its reference to EIA-708-B. For purposes of consistency, these comments will refer to EIA-708.

⁴ NPRM at ¶16.

⁵ Captions have been known to assist individuals in learning English as a second language, in improving literacy, and in helping young children to learn how to read. For this reason, it has

The ability to control the general appearance and location of captions is extremely desirable. Just as hearing viewers will be able to control the volume and quality of the audio provided through digital television's many audio channels, so too should deaf and hard of hearing individuals have the opportunity to control the appearance of captions (and of course be able to access captions) on all of the various digital programming streams. However, the advent of DTV is likely to make controlling captioning features more than just *desirable*. The increasing use of on-screen text (other than captions) is likely to make it *necessary*. As more and more programming uses network logos, programming labeling, and other types of on-screen information, it will become more and more necessary to have the ability to change the size, placement, and colors of closed captions, in order to make sure that those captions are clearly visible and are not obscuring other on-screen information.

Although the Commission recognizes the many attributes of EIA-708, unfortunately, its proposals fall far short of adopting the many standards contained therein. Instead, the Commission's NPRM proposes to only incorporate Section 9 of the EIA standard into the FCC's rules. For the reasons stated below, we strongly urge the Commission to re-evaluate its tentative decision to adopt only the minimal recommendations contained in section 9. Viewers will only be able to have captions truly "suit their needs" if they are able to fully partake in the benefits that new digital technologies have to offer.⁶

been estimated that as many as 100 million Americans can benefit from captions. National Captioning Institute Press Release (March 12, 19993)

⁶ See NPRM at ¶6.

II. Captioning Features

A. Caption Volume Control

At present, caption viewers do not have the ability to change the size of closed captions. The small size of captions has remained an impediment to enabling individuals with low vision to be able to use captions. Improved health care and the coming of the “baby boom” generation has resulted in a significant increase in the number senior citizens living in our nation. As this population ages, the number of individuals with hearing loss is growing grow as well.⁷ Many of the individuals who fall into this new segment could benefit from captions, but presently do not, because they are unable to read small print. Yet this will not be remedied by the Commission’s current proposal. Section 9.13 of EIA-708, which would be adopted under the FCC’s proposed rules, recommends only the “STANDARD” pen (caption) size, not the “caption volume control” found elsewhere in the EIA-708 standard. We urge the Commission not to adopt so limited a standard. Rather, we urge adoption of a standard that will allow viewers to change the size of their captions. Offering caption volume control will both expand the caption viewing audience, and allow viewers to customize their captions as needed.

B. Color

According to the Commission, the recommendations in Section 9 would *not* allow users to choose from the full panoply of foreground and background colors for captioning text. In

⁷ Researchers at Gallaudet University have estimated that approximately 306 per 1000 senior citizens (over the age of 65) will have hearing loss by the year 2015, and that the overall incidence of hearing loss in the entire population will climb to more than ten percent of the overall population by that year. Hotchkiss, D., “Hearing Impaired Elderly Population: Estimation, Projection and Assessment,” Gallaudet Research Institute, (Wash. D.C. 1989); Brown, Hotchkiss, Allen, Schein, & Adams, “Current and Future Needs of the Hearing Impaired Elderly Population,” Gallaudet Research Institute (Wash. D.C. 1989).

particular, Section 9.18 recommends that decoders “need only implement solid black character backgrounds.” The Commission does not offer any explanation to support its proposal to adopt so limited a standard. Although the solid black background was originally adopted to ensure easy visibility for analog television transmissions, the greater resolution of digital television will not justify so narrow an option for television viewing in the future. Rather, the FCC should adopt a standard that allows viewers to benefit from the full range of caption foreground and background colors. This will not only enable viewers to fully take advantage of new digital technologies, but will specifically benefit individuals with vision disabilities, who can more easily read captions with certain contrasting colors.

C. Font

Similarly, the Commission’s proposal to adopt Section 9 without the rest of EIA-708 would result in a mandate of only a single font for the display of caption text. In contrast, the full EIA-708 standard would provide viewers with the ability to choose from among eight different fonts. In an era in which consumers are increasingly able to choose the manner in which information is presented to them, it makes little sense to adopt a standard that does not move forward. As hearing individuals enjoy the versatility of new digital television technologies, the FCC should ensure that individuals who are deaf and hard of hearing individuals are similarly afforded the opportunity to benefit from these advanced technologies. Accordingly, we urge the Commission to adopt a standard that provides the full range of font choices for caption viewers. Again, the ability to select fonts will be of particular benefit to deaf and hard of hearing individuals who have low vision.

D. Concurrent Captioning Services

At present, the FCC's rules require decoders to be capable of decoding captioning data for two concurrent caption services.⁸ In practice, it is not uncommon for television receivers (with built-in decoder chips) to offer access to as many as four caption channels. It is therefore difficult to understand why the FCC is now proposing to adopt Section 9.2 of EIA-708, which would require that decoders only be capable of decoding and processing data for one captioning service. As digital technologies promise to bring Americans wider choices and vastly improved features, the FCC should not adopt a standard that forces Americans who are deaf and hard of hearing to take a step backward. At a minimum, decoders should be capable of decoding and processing all of the Standard Services defined in EIA-708, Sec. 6.1 and 6.2.1 (six standard services and up to fifty seven additional extended services).

Indeed, the FCC's proposed action is inconsistent with issuance of the FCC's recent rules on Section 255 of the Telecommunications Act of 1996. With respect to telecommunications products and services, those rules state that "it will generally be unacceptable to completely eliminate an existing accessibility feature," and that "the fact that a product has particular accessibility features is evidence that inclusion of those features in later products from the same producer is readily achievable."⁹ By analogy, the FCC should not adopt a standard which requires even less captioning access than is currently available.

⁸ 47 C.F.R. §15.119(c) ("The television receiver must decode both C1 and C2 captioning . . .").

⁹ *In the Matter of Implementation of Sections 255 and 251(a)(2) of the Communications Act of 194, as Enacted by the Telecommunications Act of 1996, Access to Telecommunications Service, Telecommunications Equipment and Customer Premises Equipment by Persons with Disabilities, Report and Order and Further Notice of Inquiry*, WT Dkt. No. 96-198 (September 29, 1999) at ¶26.

The FCC notes that digital technologies can allow “caption providers [to] distribute caption text for a particular program at different reading levels,” providing viewers with the option of displaying near-verbatim or “easy reader” versions of captions. In fact, the ability to receive simple English language captions is highly sought after by the deaf community, to enable both individuals with minimal English language skills to understand caption text and acquire better literacy skills, and to enable deaf children to follow a program’s content. But it is unlikely that manufacturers will deploy the capability to receive and display these caption streams unless directed to do so by the FCC. We urge the Commission to adopt a standard that would uniformly require digital television equipment to decode and process all of the standard services and extended services that are possible under the full EIA-708 standard.

E. Incorporate EIA-708 by Reference

The Commission asks whether it should incorporate all of EIA-708 into its regulations. The NAD and CAN strongly recommend that the FCC incorporate the entire EIA-708 standard by reference. It is our understanding that this standard contains information and nomenclature that is unique to digital television captioning; such terminology does not have parallel references to analog captioning. Incorporating the entire standard by reference will provide consumers, equipment manufacturers, caption providers, and programmers with the information that they need to ensure the provision of full and effective captioning choices. We remind the FCC, however, that incorporation by reference alone will not be sufficient. The Commission should directly incorporate into its rules added minimum requirements for the deployment of the various captioning features discussed above.

III. Digital Receivers

A. Dual Mode Receivers

We support the FCC's tentative decision to require that DTV receivers be capable of operating in a dual mode, to receive and display programming in both analog and digital formats. We agree with the FCC on the importance of ensuring the availability of closed captioning throughout the period during which television transitions from analog to digital formats. This will ensure that consumers can partake in obtaining access to digital programming as it is being initiated by the public at large; at the same time, it will ensure that caption viewers do not lose access to existing analog programming.

B. DTV Converter Boxes and Tuners

Similarly, we support the FCC's proposal to require that DTV converter boxes and tuners provide for the display of closed captions, by responding to either analog or digitally encoded caption information.¹⁰ We believe that the FCC is correct in concluding that most, if not all, set-top converters and DTV tuners will be used with screens that are 13 inches or larger, bringing them squarely within the scope of the Television Decoder Circuitry Act of 1990.

Application of the TDCA to all such devices will also eliminate the problem that currently exists with respect to personal computers that contain television receivers. Presently, the FCC only applies TDCA to TV receiver capability for computers when it is sold "in the same housing" or as part of the same business transaction with monitors over thirteen inches.¹¹ This has created problems for consumers who do not know which stand alone computers and plug-in television

¹⁰ NPRM at ¶12.

¹¹ *Closed Captioning Requirements for Computer Systems Used as Television Receivers*, FCC Public Notice (March 22, 1995).

circuitry are capable of displaying closed captions. A petition for rulemaking remains pending before the FCC (since December 1995) that would require all computers and plug-in circuit boards capable of receiving TV signals to be capable of displaying closed captions.¹² Requiring that all set-top converters and DTV tuners be capable of displaying closed captions will avoid this type of confusion among consumers who would otherwise have to figure out which equipment is accessible and which is not.

In addition, requiring that all set-top converters and DTV tuners have the capability to decode and display captions will hopefully foster voluntary compliance with the new FCC standards by manufacturers of television sets under thirteen inches. At the time that the thirteen inch cut-off was agreed upon by Congress, there were concerns that consumers would be unable to read captions on television sets with screens below that size. However, the high resolution of digital TV will facilitate reading captions on even the smallest of TVs. Thus, the original purpose for limiting the size of televisions covered by the TDCA no longer exists. Accordingly, we urge the FCC to encourage voluntary compliance with its new rules for televisions of all sizes, to fully exploit the benefits of new digital technologies.

IV. Effective Date

We support the FCC's decision to make its rules governing DTV captions and receivers effective one year after their adoption. We urge, however, that the FCC place this proceeding on an expedited schedule, so that the one year period can begin to toll sooner, rather than later. The FCC has established the year 2006 as the date by which all broadcasters must surrender their

¹² *In the Matter of Closed Captioning Requirements for Computer Systems Used as Television Receivers, Petition for Rulemaking* (December 22, 1995).

analog licenses. This fast approaching deadline means that broadcast programming over the next few years will increasingly be shown in digital formats. The longer it takes to complete this proceeding, the more time that people who are deaf and hard of hearing will not have access to this revolutionary technology.

Moreover, as the Commission itself notes, until the Commission completes this proceeding, all digital programming will continue to fall into the category of “pre-rule” programming under the Commission’s new captioning mandates. As such, it will only be subject to the FCC’s requirement that 75% of such programming be captioned over a ten year period. Only after the Commission adopts digital captioning standards will this programming be categorized as “new” programming, subject to the 100%/eight year mandate.¹³ Insofar as all of this programming is technically “new” programming (i.e., as compared to old movies and re-runs), consumers wish to have all of this programming comply with the more stringent captioning schedule as soon as possible.

V. Additional Design Standards Should be Incorporated

The advent of digital technology offers the opportunity to not only re-design television equipment in a manner that incorporates new digital features; it also offers the opportunity to correct some of the mistakes or omissions that presently exist with respect to the receipt and display of closed captions in general. Implementation of existing captioning standards, although for the most part successful, has resulted in certain recurrent problems which can now be rectified. These are outlined below.

¹³ NPRM at ¶4.

A. After Captions are Selected by the Viewer, Their Presence on the Screen Should Become the Default Mode.

Very often a consumer will select caption viewing, turn off the television set, and turn back on the set at a later time, only to learn that he or she must re-set the captions all over again. The new standard should ensure that a consumer does not need to re-set captions if he or she has already selected captions for his or her television programs. Moreover, to the extent that a viewer is able to set the various options discussed above (font, size, color, etc.), he or she should have the capability of entering these choices so that they operate on an ongoing basis, to avoid having to re-design his or her preferred captioning features each time he or she turns on the television.

B. Captioning and “Mute” Features Should Work Independently of One Another.

In recent years, consumers of certain brands of televisions have complained that the captions on their televisions will appear only when the mute feature on those sets is also selected. Closing off the auditory stream when captions are displayed eliminates the ability of deaf or hard of hearing individuals and hearing individuals to watch television programs together. This defeats one of the very basic goals of captioning: to enable people who are deaf and hard of hearing to enjoy television with members of their family, their friends, and their colleagues. The FCC’s new captioning standard should ensure that the ability to view captions on digital equipment is not linked to the ability to turn off sound.

C. Remote Control Units Should be Equipped with a Closed Captioning Button that is Clearly Visible to the User, and Which Accesses a First Level of Menu Choices.

All too often, accessing closed captions can result in navigating a complicated and endless maze of on-screen menu choices. This is difficult enough for consumers who purchase televisions

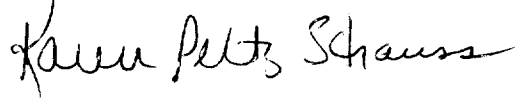
for private use. It becomes a nearly impossible task for consumers staying in hotel rooms or other unfamiliar locations, where they have not had an opportunity to become acquainted with the television equipment. For example, again and again consumers complain of not being able to watch captions on hotel televisions. All too often, an investigation into these complaints reveals that the television in question was in fact equipped with a decoder chip; however the consumers (and often the hotel staff) were unable to decipher the sequence of steps needed to access those captions. Accessing captions on televisions should be simple and fast; a conspicuously displayed caption button on the remote control unit which accesses an initial level of menu choices would remedy this problem.

VI. Conclusion

In its recent rules on Section 255, the Commission noted the importance of incorporating access as early and as consistently as possible, during the design stages of new products and services. In the instant proceeding, the Commission is given a golden opportunity to heed its own advice. The Commission should take advantage of the fact that manufacturers are able to incorporate the full range of access features at these early stages of designing digital television equipment. If incorporated now, these features can be added with minimal disruption to the designs of this new digital technology. On the other hand, if the Commission chooses to require a lesser access standard now, opposition to including additional features will be greater later. What is inexpensive and readily incorporated now, will later require costly retrofitting, at a time when companies are ready to divert resources to other purposes. We urge the Commission not to take

irreversible path. Rather, we urge the Commission to adopt a standard that, in the Commission's own words, will truly offer "substantial improvements over current captioning standards."¹⁴

Respectfully submitted,

A handwritten signature in cursive script that reads "Karen Peltz Strauss".

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Counsel for

National Association of the Deaf
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October 18, 1999

¹⁴ NPRM at ¶6.

ATTACHMENT A

Consumer Action Network

Members

American Association of the Deaf-Blind
American Athletic Association of the Deaf
American Society for Deaf Children
Association of Late Deafened Adults
Deaf Women United, Inc.
Gallaudet University Alumni Association
Jewish Deaf Congress
National Association of the Deaf
National Black Deaf Advocates
National Fraternal Society of the Deaf
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The Caption Center
Conference of Educational Administrators Serving the Deaf, Inc.
National Captioning Institute
Registry of Interpreters for the Deaf, Inc.